

0069519

SAF-RC-001
Industrial Hygiene Sampling
FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0790-01 SAF-RC-001

Rad only ☒ Chem only Rad & Chem

☒ Complete Partial

300 Area 303M Bldg

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EDMC



Cover Page

Page 1 of 7

Report Identification Number: 06I-0790-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001 /R303M0 J451
Payroll#: 73338



Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
21 Feb 2006	J114T8	06I06542	NMAM 7300M	G061Q047	G WIPE
21 Feb 2006	J114T9	06I06543	NMAM 7300M	G061Q047	G WIPE
21 Feb 2006	J11435	06I06544	NMAM 7300M	G061Q047	G WIPE
21 Feb 2006	J11436	06I06545	NMAM 7300M	G061Q047	G WIPE
21 Feb 2006	J11437	06I06546	NMAM 7300M	G061Q047	G WIPE

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Name: Lisa M. Reid
Title: Chemist
Date: February 24, 2006



Case Narrative Page

Page 2 of 7

Report Identification Number: 06I-0790-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
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General Set Information: There are 6 samples in set 06I-0786-01, 13 samples in set 06I-0787-01, 4 samples in set 06I-0788-01, 5 samples in set 06I-0790-01 and 4 samples in set 06I-0789-02 which were analyzed for cadmium, lead and beryllium on Ghost Wipe. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 5 mL of nitric acid and 5 mL of ASTM Type II water. Samples were digested in a hot block set at 110°C for 60 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium, cadmium and lead recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of +/- 10%.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.02 ug/sample. No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.07 ug/sample. No lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 2. ug/sample.

Method Blank Analysis: No beryllium, cadmium or lead was found in any of the media blank samples above the Contract Required Detection Limit (CRDL) with the exception of BL-241746-1 which had cadmium at 0.17 ug/sample.

Dilution(s): None.

Laboratory Control Sample and Duplicate Analysis: Two Laboratory Control Samples (LCSs) and two Laboratory Control Sample Duplicates (LCSDs) were prepared and analyzed with the sample batch. The LCS result was within the control limits of +/- 20%. The Relative Percent Difference (RPD) between the LCSs and the LCSDs were within the control limit of 20%.

Replicate Analysis: Three samples in this batch were replicated. The RPD between the samples and the replicates was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:

Final result for aqueous samples ($\mu\text{g}/\text{sample}$) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination ($\mu\text{g}/\text{L}$)

B = Concentration factor from sample preparation

= $\frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$

C = Dilution performed at time of analysis

Example Calculation: $(1 \mu\text{g}/\text{L}) \times (0.025 \text{ L}/\text{sample}) \times (1) = 0.025 \mu\text{g}/\text{sample}$

Miscellaneous Comments: None



Report Page

Page 4 of 7

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Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001 /R303M0 J451
Payroll#: 73338

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium µg/sample		Cadmium µg/sample		Lead µg/sample	
J114T8	06I06542	23 Feb 2006	<0.02	U	<0.07	U	<2.	U
J114T9	06I06543	23 Feb 2006	<0.02	U	<0.07	U	<2.	U
J11435	06I06544	23 Feb 2006	<0.02	U	<0.07	U	<2.	U
J11436	06I06545	23 Feb 2006	<0.02	U	<0.07	U	<2.	U
J11437	06I06546	23 Feb 2006	<0.02	U	<0.07	U	<2.	U
Limit of Detection (LOD)			0.02		0.07		2.	
Required Detection Limit (RDL)								

U - Parameter not detected above LOD.

J - Parameter between LOD and RDL.



QC Summary Page

Page 5 of 7

Report Identification Number: 06I-0790-01
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Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF: RC-001 /R303M0 J451
Payroll#: 73338

Batch ID: G061Q047

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-241746-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-241746-1	MB	Cadmium	µg/sample	0.17	NA	NA	NA	NA
BL-241746-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
QC-241746-1	LCS	Beryllium	µg/sample	11.2	NA	10.0	112.	NA
QC-241746-1	LCS	Cadmium	µg/sample	32.8	NA	30.0	109.	NA
QC-241746-1	LCS	Lead	µg/sample	107.	NA	100.	107.	NA
QD-241746-1	LCSD	Beryllium	µg/sample	11.9		10.0	119.	6.25
QD-241746-1	LCSD	Cadmium	µg/sample	35.0		30.0	117.	6.67
QD-241746-1	LCSD	Lead	µg/sample	113.		100.	113.	5.18

MB - Method Blank

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MSD - Matrix Spike Duplicate

LD - Laboratory Duplicate

NA - Not Applicable

ND - Parameter not detected above LOD

$LCS, LCSD \text{ Percent Rec.} = (\text{Result} / \text{Target}) * 100.0$

$MS, MSD \text{ Percent Rec.} = ((\text{Result} - \text{Parent}) / \text{Target}) * 100.0$

$LCS, LCSD \text{ Relative Percent Diff.} = ((|LCS - LCSD|) / ((LCS + LCSD)/2.0)) * 100.$

$MS, MSD \text{ Relative Percent Diff.} = ((|MS - MSD|) / ((MS + MSD)/2.0)) * 100.$

$LD \text{ Relative Percent Diff.} = ((|Parent - LD|) / ((Parent + LD)/2.0)) * 100$

06E-079001

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST														
Collector:		Company Contact:		Telephone No.:		Project Coordinator:		Data Turnaround:						
Chris Schilling		Denise A. Pitts and Henry W. Ruby		531-1229		Yuan H. Kassar		24Hr						
Payroll #:		Sampling Location:		SPECIAL INSTRUCTIONS:										
72358		300 Area- 303M Bldg		All relevant COAs must be provided:										
Type of Sample:		Wipe Sample Media:		ANALYSIS METHOD (SPECIFIC):										
Be, Cd, Pb		Ghost <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		NIOSH 7300 Be, Pb, Cd										
Shipped To:		Other <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <th colspan="6">Bill of Lading/Air Bill No.</th>		Bill of Lading/Air Bill No.										
Data Chem, Salt Lake				8544 9435 4840										
POSSIBLE SAMPLE HAZARD/REMARKS														
Be, Cd, Pb														
Special Handling and/or Storage														
N/A														
SAMPLE ANALYSIS														
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (l) or Area (sq. ft.)	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Cd Wipe	Lead Wipe	No	No	No
211478	Wi	02-21-06	N/A	Blank		X				X	X			
211479	Wi	02-21-06	N/A	Blank		X				X	X			
211435	Wi	02-21-06	100	N/A		X				X	X			
211436	Wi	02-21-06	100	N/A		X				X	X			
211437	Wi	02-21-06	100	N/A		X				X	X			

214T8

[illegible]

DATE:

PRINT/SIGN NAME _____

WCH-SH-202 (08/29/2005)

Page 2 of 2



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: Chris Schilling		Company Contact Denise A. Pitts and Henry W. Ruby		Telephone No. 531-1229		Project Coordinator Joan H. Kessner		Data Turnaround 24Hr					
Payroll #: 73338		Sampling Location 300 Area- 303M Bldg		SPECIAL INSTRUCTIONS All relevant COAs must be provided: R303M0J451 ANALYSIS METHOD (SPECIFIC): NIOSH 7300 Be, Pb, Cd		SAF No. RC-001		Method of Shipment Federal Express Bill of Lading/Air Bill No. 8544 9435 4840					
Type of Sample: Be, Cd, Pb													
Shipped To: Data Chem, Salt Lake		Wipe Sample Media: Ghost <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Other <u>N/A</u>											
POSSIBLE SAMPLE HAZARD/REMARKS Be, Cd, Pb		MATRIX A - AIR WI - WIPE X - OTHER		Preservation (i.e., cooling required, etc.)		No	No	No	No	No	No	No	No
Special Handling and/or Storage N/A						Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Cd Wipe	Lead Wipe	Cd Airborne
SAMPLE ANALYSIS													
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area 100 cm ²	Comments									
3114T8	Wi	02-21-06	N/A	Blank			X				X	X	
3114T9	Wi	02-21-06	N/A	Blank			X				X	X	
311435	Wi	02-21-06	100	N/A			X				X	X	
311436	Wi	02-21-06	100	N/A			X				X	X	
311437	Wi	02-21-06	100	N/A			X				X	X	
<div style="text-align: center; font-size: 2em; font-weight: bold;">COPY</div> <div style="text-align: center; font-weight: bold;">FIELD SAMPLE COPY</div>													

Enter on line below the first Sample Number from Page One:

3114T8

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

Relinquished By/Stored: Chris Schilling	DATE / TIME 02-22-06 / 1100	Received By/Stored: Locked Cabinet Rm 16, 3746 Bldg	DATE / TIME 02-22-06 / 1100
Relinquished By/Stored: <i>locked cabinet bldg 3746 Rm #16</i>	DATE / TIME	Received By/Stored:	DATE / TIME
<i>Golden Malha, Goldie Mathan</i>	<i>02-22-06 / 1430</i>	<i>RZ Steffler R.Z. Steffler</i>	<i>2-22-06 / 1430</i>
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
<i>RZ Steffler R.Z. Steffler</i>	<i>2-22-06 / 1600</i>	<i>Fed Ex</i>	
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY: _____ DATE: _____
PRINT/SIGN NAME